

***United States Court of Appeals
for the Second Circuit***



**APPELLANT'S
BRIEF**

ORIGINAL

75-1044

VB
P/S

United States Court of Appeals

For the Second Circuit.

Spec. Calendar No. S 195

UNITED STATES OF AMERICA,

Plaintiff-Appellee,

-against-

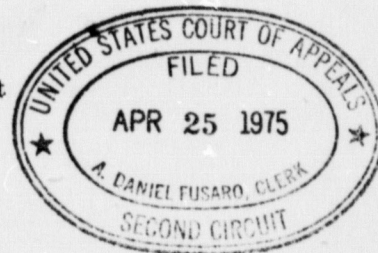
ROBERT ALAN KESTENBAUM,

Defendant-Appellant.

*On Appeal From The United States District
Court For The Eastern District Of New York*

Appellant's Brief

IRVING E. FIELD
Attorney for Defendant-Appellant
310 Madison Avenue
New York, N.Y. 10017
(212) MU 7-5018



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PRELIMINARY STATEMENT

This is an appeal from a judgment of conviction entered in the United States District Court for the Eastern District of New York, Thomas C. Platt, J., upon a plea of guilty to possession of Cannabis sativa L. (Marijuana) in violation of 21 USC Sec. 844(a)(1).

TABLE OF CITATIONS

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STATUTES

The statutes to be interpreted are set forth.

18 USC 3651	2
18 USC 4209	2
18 USC 5006, 5010, 5011, 5015	2
21 USC 844	3

ISSUES PRESENTED

1. Whether, after a finding that a defendant be treated as a youthful offender, the court may consider punishment as the determinative factor, rather than rehabilitation.
2. Whether the court has the power and authority to order confinement in a youth center for a period of two months.
3. Whether the court may impose a conglomerate sentence of probation for three years under 18 USC 5010(a), commitment to the custody of the Attorney General for treatment and supervision under 18 USC 5010(b), and a fine under 18 USC 3651 and 18 USC 5010(d).

FACTS

The defendant who was 25 years old at the time, pleaded guilty to possession of Cannabis sativa L., a marijuana derivative, in violation of 21 USC 841(b)(1) and requested treatment under 21 USC 841(b)(1) as a first offender (A-15). He had cooperated fully with the drug enforcement agents but could give no substantial information since this was an isolated offense (A-18). The defendant is a graduate of Southampton College and was on the Dean's List three out of the four years he attended (A-40). He had had no previous arrests, no convictions, and no previous trouble of any kind. He was, prior to the time of the within offense, an exemplary citizen. He had attained the rank of Eagle Scout in the Boy Scouts of America and had spent much time with younger people. He received enthusiastic endorsements from his religious leader, his scoutmaster and his then employer (A-42). His father is a dentist and his mother a physical therapist. They reside in Scarsdale, New York. He unquestionably comes from a good and secure home (A-43).

The court twice adjourned the case so that it could consider treatment of the defendant pursuant to 21 USC 844(b)(1) since this was a first offense (A-22, A-23, A-29). Under such treatment, he would have been subject to probation for a period of one year.

At the time of sentencing the court denied the application pursuant to Section 844(b) (A-44). The court elected to treat the defendant under the Youth Offender Act (A-45).

NOTE: Since this is a marijuana possession offense and since there is so much discussion at the present time regarding the criminality or non-criminality of the possession of marijuana, we respectfully submit herewith as Appendix A a recent analysis of this question. We respectfully submit that this should be and should have been taken into consideration by the court. This report, unfortunately, was published after the court below acted.

POINT I
THE COURT EMPLOYED IMPROPER
STANDARDS IN FIXING SENTENCE

I. By finding that the defendant should be accorded treatment as a Youthful Offender (A-45, lines 13-15), the court was bound by Congressional intent in enacting 18 USC 5005, et seq.

The purpose of Congress was to prescribe rehabilitation in lieu of punishment for youthful offenders. (Frye v. Moran, 302 F. Supp. 1291, affirmed 417 F.2d 315; Cunningham v. United States, (CCA-5) 256 F.2d 467; Briscoe v. United States, 368 F.2d 214; Smearman v. United States, 279 F. Supp. 134).

The court below was, however, obsessed with the idea that some measure of punishment was necessary and thus employed a fixed and mechanical approach in imposing sentence. (cf United States v. Linda H. Schwartz, No. 1152 - September Term, 1973, Docket No. 74-1455). This is stated in the court's own words at A-45:

****I understand what you say, this man undoubtedly never will commit another offense again, but I think there has to be some minimum punishment.

I've tried to devise that in the best way I know. I've taken into consideration all of the facts that have been presented to me, and I realize the punishment is not going to hurt you Mr. Kestenbaum as well as it's going to hurt your mother and father, and indeed, if I do anything to negate punishment to them I would do it, but I feel there must be some minimum punishment."

That the court did not make a careful appraisal of the various components entering into the sentence on an individual basis, but did distort the sentence into the fixed and mechanical mold of "punishment" is amply supported in the record:

1. The court directed that the defendant be committed to the custody of the Attorney General for treatment and supervision for one year, the execution of ten months of which was suspended, and directed that the defendant be confined in a Youth Center for two months.

It was beyond the power of the court to require that the defendant be so confined in a Youth Center. Section 5011 USC provides that committed youth offenders may undergo treatment at a variety of places (apparently in the discretion of the Attorney General or his representative)

including hospitals, farms, forestry and other camps, etc.

Also, the two month period of confinement (despite the court's declared purpose of imposing punishment) would necessarily be reduced by a period of one month at a classification center or agency, during which time a complete study would be conducted of the committed youth offender, and recommendations made as to his treatment (18 USC 5014). It seems most unlikely that anything would be accomplished during the two month period other than to waste the taxpayers' money -- but punishment for the young man it would be, indeed.

II. The court stressed the fact that the youthful offender had received "a remarkable break" in the reduction of the offense (A-44, A-45, A-46) and apparently this was an important factor in the court's mechanical approach to the necessity for "punishment". We do not concede that the government could have proven any offense other than that to which he pleaded guilty. We respectfully submit that any consideration of any other unsupported, unproven alleged offense was improper and a violation of the defendant's constitutional rights. The presumption of innocence of a specific crime is a substantial right and no inference may be taken by any court for any purpose to the contrary.

POINT II
THE SENTENCE IMPOSED WAS
EXCESSIVE AS A MATTER OF LAW

The sentence, as it appears verbatim in the minutes, is as follows
(A-45 and A-46):

"So the Court finds the defendant who is twenty-five years of age and is suitable for handling under the Youth Offender Act, 18 USC 4209, it is adjudged pursuant to 18 U.S.C. Section 5010D in (sic) 18 U.S.C. 3651, that the defendant is hereby

committed to the custody of the Attorney General or his duly authorized representative for treatment and supervision at a youth center for a term of one year on condition that the defendant be confined in such youth center for a term of two months, the execution of the remainder of the sentence of confinement is hereby suspended and the defendant is placed on probation under 18 U.S.C. 6010A for a period of three years, and further that the defendant is fined in the sum of \$1,000."

Broken up into its component parts, the sentence apparently imposes:

- (1) Probation pursuant to 18 USC 5010(a) for three years.
- (2) Suspension of execution of sentence pursuant to 18 USC 5010(a).
- (3) Commitment to the custody of the Attorney General for treatment and supervision at a youth center for one year, the execution of ten months which was suspended, apparently pursuant to 18 USC 5010(a).
- (4) Commitment to the custody of the Attorney General for treatment and supervision at a youth center for two months pursuant to 18 USC 5010(b).
- (5) Imposition of a fine of \$1,000 under "any other applicable penalty provision" pursuant to 18 USC 5010(d) and 18 USC 3651.

United States Code section 5010 provides in pertinent part:

"Section 5010. Sentence

(a) If the court is of the opinion that the youth offender does not need commitment, it may suspend the imposition or execution of sentence and place the youth offender on probation.

(b) If the court shall find that a convicted person is a youth offender, and the offense is punishable by imprisonment under applicable provisions of law other than this subsection, the court may, in lieu of the penalty of imprisonment otherwise provided by law, sentence the youth offender to the custody of the Attorney General for treatment and supervision pursuant to this chapter until discharged by the Division as provided in section 5017(c) of this chapter; or

(d) If the court shall find that the youth offender will not derive benefit from treatment under subsection (b) or (c), then the court may sentence the youth offender under any other applicable penalty provision.

United States Code Title 18, section 3651:

"Section 3651. Suspension of sentence and probation

Upon entering a judgment of conviction of any offense not punishable by death or life imprisonment, any court having jurisdiction to try offenses against the United States when satisfied that the ends of justice and the best interest of the public as well as the defendant will be served thereby, may suspend the imposition or execution of sentence and place the defendant on probation for such period and upon such terms and conditions as the court deems best.

While on probation and among the conditions thereof, the defendant--

May be required to pay a fine in one or several sums; and *** "

5010(a) provides for probation and suspension of sentence, and apparently the court did grant that under this subdivision.

5010(b) provides that, upon a finding that a convicted person is a youth offender, the court may, in lieu of imprisonment, sentence the youth offender to the custody of the Attorney General for treatment and supervision. The court below did so find and did so sentence the defendant to the custody of the Attorney General.

5010(d) provides that the court may sentence the youth offender under any other applicable penalty provision only if the court finds that he will not derive benefit under subsection (b). However, in this case the court specifically sentenced the defendant to the custody of the Attorney General for treatment and

supervision, necessarily pursuant to subdivision (b), implicitly and necessarily finding that the youth offender would derive benefit from treatment and supervision. Therefore, under the statute, the court had no authority to impose a fine under 5010(d) and 3651. The imposition of the \$1,000 fine must be set aside.

We also take the position that under the wording of Section 5010(a), once the youth offender is placed on probation under this subsection, no other penalty may be imposed in the absence of a violation of the probation. To hold otherwise would vitiate the entire intent and meaning of this Article and would lead to harsh results.

We are cognizant of the wide discretionary power of the court in imposing sentence. However, this must be a judicial discretion under the statute, unfettered by the personal opinion of the court that punishment is a necessary ingredient in fixing sentence or that children from secure homes require less consideration than children from slum areas. The purpose of the statute is to expedite the return to society of a useful trouble-free citizen. In this case all concerned - defense counsel, the Attorney General, the court - apparently are convinced that this youth will never again transgress.

In this case (bearing in mind that this is a marijuana offense, the criminality of which is being vigorously attacked on various fronts) the penalty imposed is extremely harsh. Although the defendant reaped no profit from his brief incursion into the realm of crime, he has been fined \$1,000, as punishment. Can it be said that a young man from the slums would be fined \$1,000, or even ten cents. (cf United States v. Linda H. Schwartz, ibid). The young man's life

will be disrupted by the imposition of two month's confinement as punishment, to what useful purpose it is difficult to fathom. The government will incur expense in the transportation, examination and evaluation of this young man -- and these preliminary expenses will be incurred just in time to release him. To what purpose?

CONCLUSION

1. That portion of the sentence which imposes a fine of \$1,000 should be set aside.
2. So much of the sentence as provides two months confinement at a Youth Center should be vacated and on resentencing execution thereof should be suspended.

Respectfully submitted,


IRVING E. FIELD
310 Madison Avenue
New York, N. Y. 10017
(212) MU. 7-5018

Attorney for Defendant-Appellant

APPENDIX A

CU VIEWPOINT

MARIJUANA: THE LEGAL QUESTION



Last month CU reviewed the spate of recent reports of physiological damage allegedly caused by smoking marijuana. Marijuana, it is said, causes brain damage and premature aging of the brain; lowers the body's resistance to infectious diseases and cancer; increases the likelihood of birth defects and of hereditary diseases; damages the lungs; and may lead to impotence, sterility, or both, in men.

Those reports, most of which were the subject of testimony last spring before the Senate Internal Security Subcommittee chaired by Senator James O. Eastland of Mississippi, had gained widespread currency in the media. But few Americans had seen or heard the countervailing evidence. Senator Eastland's committee did not seek it out, nor has the press delved very deeply into the subject.

CU's March article evaluated both the publicized reports mentioned above and the unpublicized reports that fail to show significant ill effects from use of the drug even at extraordinarily high dosage levels. Our review concentrated on studies made since preparation of CU's book, "Licit and Illicit Drugs," published in 1972. We concluded that recent reports, like past reports, fail to prove that marijuana is either harmful or harmless.

As CU pointed out in 1972, no drug is harmless to all persons at all dosage levels or under all conditions of use. Since marijuana, like any other drug, is probably harmful in at least some respects to at least some users at some dosage levels under some conditions of use, the question naturally arises, what should society do about it? More specifically, should laws that require the arrest and imprisonment of persons found with marijuana in their possession remain on the books?

The notion that arrest and imprisonment are the proper social responses to possession of a hazardous product or substance appears inconsistent with society's usual approach to products, even to hazardous products. When an

electrical appliance constitutes a potentially lethal shock hazard, no one demands the arrest and imprisonment of those who own the offending appliance. Alcohol and nicotine are both demonstrably harmful drugs, but society does not arrest and imprison those found to possess them.

Arrest and imprisonment are harmful to those who experience them—that can hardly be disputed. Why should marijuana smokers, unlike tobacco smokers and alcohol drinkers, be deliberately subjected to damage by society in addition to any damage they may do to themselves through the use of a drug?

The chief argument against arrest or imprisonment for the possession of marijuana, even if marijuana were known to be hazardous, is that arrest and imprisonment do not curb marijuana use. Indeed, strict enforcement of antipossession laws may actually make marijuana more generally available and encourage use, as CU has demonstrated in "Licit and Illicit Drugs." The recent evidence confirms this view.

Here is what has been happening. Finding that the heavy penalties formerly decreed for marijuana possession were making it difficult or impossible to secure convictions in court, prosecutors and the police a few years ago joined the chorus of voices that were already recommending milder penalties. Penalties were in fact reduced by all 50 state legislatures. Given these milder, enforceable laws, the police devoted an ever-increasing portion of their energies to marijuana "busts." State and local marijuana arrests reported to the F.B.I. rose steadily and precipitously. There were 18,815 arrests reported in 1965. By 1971, arrests had risen to 225,828. Two years later, arrests had nearly doubled—to 420,700.

Has this massive police effort curtailed the use of marijuana? Hardly. The National Institute on Drug Abuse reported to Congress in 1974 that marijuana use remained at an all-time high. Between 1969 and 1973, as marijuana

arrests increased from 119,000 to 421,000, marijuana experimentation among high school senior boys increased from 20 per cent to 60 per cent. In short, gargantuan police efforts have been paralleled by an explosive and continuing increase in use among young people.

"It is now much too late to debate the issue: marijuana versus no marijuana," CU noted in 1972. "Marijuana is here to stay. No conceivable law-enforcement program can curb its availability." Nearly one million marijuana arrests have occurred since those words were written—and marijuana remains almost universally available.

THE OREGON EXPERIENCE

But wouldn't marijuana be even more widely smoked in the absence of arrests and criminal penalties? Evidence on this issue comes from Oregon, which reformed its marijuana laws in October 1973. Possession of small amounts of marijuana was decriminalized; it became a civil "violation" rather than a crime. Those found in possession of an ounce or less are subjected to a civil fine not to exceed \$100. In lieu of being arrested they are given a ticket resembling a traffic ticket, thus avoiding both an arrest record and a criminal record. They do not sit in jail awaiting bail or trial.

One year later, in October 1974, the results of decriminalization were checked through a series of interviews with 802 respondents—a cross-section of Oregon residents aged 18 and over. The study was commissioned by the Drug Abuse Council, a private agency funded by private foundations. Despite a year without criminal penalties, only 72 respondents (9 per cent) reported being current marijuana smokers—and almost all of them reported that they had begun smoking marijuana before decriminalization. Indeed, only four respondents out of the 802 (0.5 per cent) reported that they had started smoking following decriminalization. This is certainly not the "marijuana explosion" predicted by opponents of decriminalization.

The 91 per cent of Oregon respondents who were not smoking marijuana a year after decriminalization reported various reasons for refraining: not interested, 53 per cent; health danger, 23 per cent; risk of prosecution, 4 per cent; marijuana not available, 2 per cent; other reasons, 9 per cent; undecided, 9 per cent.

Most nonusers of marijuana, in short, had enough persuasive reasons for not using it without the need to buttress their decisions with fear of criminal penalties.

But while Oregon's decriminalization of marijuana had little apparent effect on the number of users, it did have other readily visible effects, described in detail by J. Pat Horton, district attorney for Oregon's Lane County, which includes the city of Eugene.

"Decriminalization has, in fact, prioritized police work into areas of violent crime and crime against property," District Attorney Horton told a conference of the National Organization for the Reform of Marijuana Laws. "When possession of small amounts of marijuana was a crime, we found that police officers allocated a disproportionate amount of their time to the apprehension of those individuals. Currently, law enforcement officers spend more time in the area of violent crime and, thus, better serve the

community. . . . There is a growing recognition on behalf of the citizens in the state of Oregon that police are truly serving the interests of society rather than attempting to enforce unenforceable laws."

The relationship between young people and the police, Horton continued, "has improved substantially. . . . The community leaders of tomorrow no longer need fear the threat of criminal convictions on their record for engaging in behavior that is socially acceptable in many quarters."

Further, "The impact on the criminal courts has been significant, for [decriminalization] has removed approximately one-third of the total number of cases awaiting trial from the docket, thus freeing valuable space in our courtrooms to adjudicate matters which have a serious concern to the community. By the same token, the jail population now is made up of serious felons rather than young people accused of possessing small amounts of marijuana who usually had no other criminal history."

Legislators in other states still fear that if they vote for marijuana decriminalization, they may be defeated at the next election. That was not Oregon's experience. "Acceptance of the new legislation in Oregon has been overwhelmingly positive," Horton reported, "especially among middle-aged people who have children in grade, junior high, or the high school level. An attempt by a small number of people in the state to restore criminal penalties for possession was overwhelmingly defeated. Virtually every candidate for office and every incumbent in the state of Oregon, when questioned on the new decriminalization law, has indicated publicly that he favored such legislation and would vote legislatively to continue it.

"By all measurable standards, decriminalization was a comfortable transition, signifying fair play to the individual and widespread acceptance by our electorate."

CU's research for "Licit and Illicit Drugs" impelled us to be among the first national organizations to recommend marijuana decriminalization—that is, the removal of all criminal penalties for marijuana possession and personal use. (Our full position is spelled out in the book.) Other organizations that have come to the same conclusion include: American Bar Association; American Public Health Association; Governing Board of the American Medical Association; National Advisory Commission on Criminal Justice Standards and Goals; National Commission on Marijuana and Drug Abuse (The Shafer Commission); National Conference of Commissioners on Uniform State Laws; National Council of Churches; National Education Association.

Oregon's experience with the practical results of decriminalization buttresses our decision to remain on that list.

QUOTE WITHOUT COMMENT

■ The Globe will resume accepting cigarette advertising. . . . In general, the lung cancer rate for smokers is nearly eight times higher [than for nonsmokers]; and the heart disease rate is twice as high. . . . [But] there is . . . a responsibility to its public to allow the varying voices of the community appropriate access to its advertising space. ■ —Editorial in THE BOSTON GLOBE.



MARIJUANA: THE HEALTH QUESTIONS

Is marijuana as damaging as recent reports make it appear?

By Edward M. Brecher and the Editors of Consumer Reports

Over the past year the news media have carried many stories warning that smoking marijuana produces severely damaging effects on the human body. CU has followed these news accounts with great interest. In our special publication, "Licit and Illicit Drugs," published in 1972, we presented an exhaustive study of the scientific, social, and legal evidence through the end of 1971. Based on the evidence then available, we recommended that marijuana should be regulated rather than prohibited, that all persons currently imprisoned for marijuana possession or for sharing marijuana with friends should be released, and that past offenses of these kinds should be erased from the legal records. The time has come to take a fresh look at the alleged dangers of marijuana.

THE SCIENTIFIC CASE AGAINST MARIJUANA

Many of the recent allegations concerning the effects of marijuana on health have appeared in reputable scientific journals. Here, in summary, is the case against marijuana recently presented to the public.

Edward M. Brecher, an award-winning science writer and investigative reporter, has been a frequent contributor to CONSUMER REPORTS since 1938. He was a principal collaborator on "The Consumers Union Report on Smoking and the Public Interest" (1963), which foreshadowed the U.S. Surgeon General's report of 1964; and he was the senior author of "Licit and Illicit Drugs," the CU report cited by the American Library Association as one of 43 books "of outstanding merit" in 1972.

1. Smoking marijuana damages the brain irreversibly and ages it prematurely.

In December 1971, the late Dr. A. M. G. Campbell and his associates reported in a leading British medical journal, *The Lancet*, on X-ray studies of the brains of 10 chronic marijuana smokers. Compared to a group of nonsmokers of the same age, the marijuana group reportedly showed "evidence of cerebral atrophy"—that is, a wasting away of brain tissue.

Such X-ray studies, called air encephalograms, can be painful and hazardous, and no other research group has yet ventured to repeat the Campbell study. Several studies involving other techniques, however, are often cited in support of Dr. Campbell's findings. At the Tulane University School of Medicine, for example, Dr. Robert G. Heath implanted electrodes deep in the brains of six rhesus monkeys and recorded the monkeys' brain waves before, during, and after heavy exposure to marijuana smoke. In monkeys, as in humans, temporary changes in brain-wave patterns are normal with almost any change in the body or its environment. But persistent changes are cause for concern. Dr. Heath reported that after his monkeys were subjected to marijuana smoke in large doses daily for months, the changes became persistent; they could be observed as long as five days after marijuana exposure was discontinued. Further, an autopsy report on two of Dr. Heath's monkeys indicated "structural alteration of cells in the septal region of the brain." The alterations

were said to be "minimal," visible only under a microscope. "Our previous experience with similar conditions," Dr. Heath stated, "would lead us to assume that this chronic smoking of marijuana has probably produced irreversible changes in brain function."

Dr. Campbell's 10 patients and Dr. Heath's two monkeys provide the only direct evidence of possible brain damage to date. Indirect evidence, however, comes from Drs. Harold Kolansky and William Moore, psychiatrists at the University of Pennsylvania School of Medicine and the Institute of the Philadelphia Association for Psychoanalysis. Drs. Kolansky and Moore are convinced, on the basis of their observations of marijuana-smoking patients, that chronic smoking produces "a specific and separate clinical syndrome," or pattern of behavior, which has been called "the amotivational syndrome." The hallmarks of this syndrome are said to be "disturbed awareness of the self, apathy, confusion, and poor reality testing." Other signs are sleep disturbances, memory defects, and impairment of the time sense.

"Many of those we examined," Dr. Kolansky said, "were physically thin and often appeared so tired that they simulated the weariness and resignation of some of the aged. All appeared older than their chronological age. . . ." These observations, the Philadelphia psychiatrists concluded, "seemed to imply some form of organic change" in the brains of chronic marijuana smokers.

2. Smoking marijuana lowers the body's resistance to infectious diseases and cancer.

The human body has several defenses against infectious diseases, foreign protein substances, and possibly even against some types of cancer. One of these immunological defenses is provided by the "T-lymphocytes"—certain white blood cells derived from the thymus gland. When viruses or some other foreign substances invade the body, the T-lymphocytes multiply very rapidly and attack the invaders. This is an important aspect of the "immune response."

Dr. Gabriel G. Nahas and his associates at Columbia University's College of Physicians and Surgeons reported in Science in February 1974 that the immune response of marijuana smokers is impaired. The Nahas group based its conclusion on a complex series of laboratory procedures. They removed some T-lymphocytes from the blood of 34 marijuana smokers, allowed the cells to multiply in laboratory cultures for 72 hours, and then exposed them to pooled donor lymphocytes or to a specific chemical—either of which normally evokes the immune response in those cells.

Under these circumstances, the T-lymphocytes of the marijuana smokers assimilated less thymidine (an important cell building block) from the culture solution than did those of the nonsmokers. This result suggested that the cells from the smokers were not multiplying normally.

Dr. Nahas interprets this finding to mean that the immune response of the T-lymphocytes of marijuana smokers is impaired. In this respect, he states, they resemble the T-lymphocytes of some patients with cancer or kidney disease. He concludes that marijuana smokers lack an essential means of defense against infectious diseases and cancer.

In October 1974, Dr. Sudhir Gupta and his associates at Roosevelt and St. Luke's Hospitals in New York City re-

ported related findings in The New England Journal of Medicine. Using a procedure that tests the response of T-lymphocytes to sheep red blood cells, they observed that the reaction of T-lymphocytes from marijuana smokers was weaker than the reaction of T-lymphocytes from nonsmokers. They concluded that marijuana might induce a reduction of T-lymphocyte function in man.

3. Smoking marijuana increases the likelihood of birth defects and of hereditary diseases.

Most normal human cells have 46 chromosomes. Each chromosome carries numerous genes, or units of DNA (deoxyribonucleic acid), which govern the manufacture of proteins within the cell and regulate many of the cell's other functions. Sperm cells and ova each contain only 23 chromosomes; these are of particular importance, for they carry the DNA "genetic code" from parents to offspring.

Back in 1967, reports began to appear alleging that the drug LSD damages chromosomes. Subsequent careful studies failed to confirm this allegation, and the earlier reports are now generally discredited.

Among those who reported that LSD does not damage chromosomes was Dr. Morton Stenchever of the University of Utah College of Medicine. In January 1974, however, Dr. Stenchever and his associates reported in the American Journal of Obstetrics and Gynecology that they had found a somewhat elevated proportion of damaged chromosomes in the lymphocytes of 49 marijuana smokers, including some who smoked marijuana only twice a week or less.

Another chromosome study, not published at this writing, was described at hearings of the U.S. Senate Subcommittee on Internal Security last May. Dr. Akira Morishima, an associate of Dr. Nahas, told the subcommittee that he had compared 956 lymphocytes from marijuana smokers with 954 from nonsmokers. More than 30 per cent of the lymphocytes from smokers contained fewer than 31 chromosomes instead of the usual 46. Among lymphocytes from nonsmokers, only about 10 per cent contained so few chromosomes.

"Since lymphocytes constitute an essential component of

"If the [marijuana] epidemic continues...we may find ourselves saddled with a large population of semi-zombies."

Senator James O. Eastland



cellular immunity and chromosomes are basic units of inheritance at the cellular level," Dr. Morishima told the Senate subcommittee, "it seems logical to anticipate potential danger in [the] immune defense system, development of cancer . . . , genetic mutation and birth defects."

In the Nahas experiment, it will be recalled, T-lymphocytes failed to multiply rapidly when challenged with foreign substances. The reason they failed to multiply, Dr. Nahas declares, was that they could not manufacture enough DNA. Dr. Morishima similarly attributes his finding of too few chromosomes to a defect in DNA manufacture.

4. Smoking marijuana causes precancerous changes in the lung cells and other lung damage.

Damage to lung cells from marijuana smoke has been reported by Drs. Cecile and Rudolph Leuchtenberger of Switzerland and also by Dr. Forest S. Tennant, whose studies were performed while he was a medical officer stationed with the U.S. Armed Forces in Europe. In addition, some clinical studies suggest that those who smoke large amounts of marijuana for long periods may be more likely to develop chronic bronchitis or other conditions indicating lung-cell damage than those who do not.

Dr. Cecile Leuchtenberger's work, however, goes far beyond lung-cell damage. She grew lung cells of human origin in her laboratory and subjected them to repeated whiffs of marijuana smoke. Under these conditions, she found damage to chromosomes, changes in the number of chromosomes, and changes in DNA manufacture—which she interpreted as suggesting precancerous changes. She also reported abnormal sperm cells in mice exposed to marijuana. Thus, Dr. Leuchtenberger alleges five different kinds of marijuana damage—more than any other scientist to date.

5. Smoking marijuana may lead to sterility, impotence, or both, among men.

Testosterone is the most potent male sex hormone. The concentration of testosterone in the blood of a human male can be readily measured. In April 1974, Dr. Robert C. Kolodny and his associates at the Reproductive Biology Research Foundation in St. Louis (the Masters-Johnson sex research center) reported in *The New England Journal of Medicine* that they had studied testosterone blood levels of 20 frequent marijuana smokers and 20 nonsmokers. The levels in the marijuana smokers, though within normal limits, were lower than the levels in the nonsmokers. And the levels in subjects who smoked 10 or more marijuana cigarettes per week were lower than the levels of those who smoked only five to nine per week.

Six marijuana smokers had relatively low sperm counts and two complained of impotence; such effects might (or might not) be related to low testosterone levels. When one of the men who complained of impotence stopped smoking marijuana, he reported his potency had been restored.

SENATOR EASTLAND'S CONCLUSIONS

Many of the findings reviewed above were nationally publicized last spring at hearings of the Senate Internal Security Subcommittee, chaired by Senator James O. Eastland of Mississippi. Senator Eastland drew these personal conclusions from the testimony

"(1) If the cannabis [marijuana] epidemic continues to spread . . . we may find ourselves saddled with a large population of semi-zombies—of young people acutely afflicted by the amotivational syndrome. . . .

"(2) We may also find ourselves saddled with a partial generation of young people—people in their teens and early twenties—suffering from irreversible brain damage. . . .

"(3) The millions of junior high school and grade school children who are today using marijuana may produce another partial generation of teen-agers who have never matured, either intellectually or physically, because of hormonal deficiency and a deficiency in cell-production during the critical period of puberty. . . . We may witness the phenomenon of a generation of young people who have begun to grow old before they have even matured.

"(4) . . . There is the possibility . . . that we may develop a large population of youthful respiratory cripples. And there is the possibility—which can only be confirmed by epidemiological studies—that marijuana smokers are producing far more than their quota of malformed and genetically damaged children. . . ."

If the scientific reports of adverse marijuana effects are well-founded, there can of course be no possible objection to their then being widely publicized through Congressional hearings, news accounts, or other means. The truth about marijuana should be known. But if the reports are poorly founded, that fact needs to be reported, too. For such misinformation serves only to frighten the public unnecessarily especially the millions of marijuana smokers, former smokers, and their families—many of whom may now be waiting in dread for brain damage, cancer, and other predicted disasters to strike themselves or their loved ones. Accordingly, it may prove useful for CU to review recent medical evidence overlooked—or ignored—by the Eastland subcommittee and by the press that covered the hearings.

THE JAMAICA STUDY

Back in 1970, when CU's "Licit and Illicit Drugs" was still in the research stage, a different but almost equally horrifying collection of marijuana hazards was being publicized. Yet many marijuana smokers appeared to remain in good health and in good spirits, just as they do today. Perhaps, we reasoned, it is too early to gauge the true effects of marijuana smoking in the United States or Canada.

But what of other countries where marijuana has been a daily custom for generations? If dire adverse effects existed, they would surely be readily visible there, observable without air encephalograms, implanted electrodes, or other sophisticated laboratory procedures. Scientists dispatched to such countries would not have to predict the long-term consequences of marijuana use; they could readily see and measure those effects.

The same idea, of course, occurred to others, including administrators at the National Institute of Mental Health. They commissioned the Research Institute for the Study of Man to study marijuana effects on the island of Jamaica. For decades, Jamaicans have smoked marijuana much stronger than that smoked in the United States.

Although the Jamaica report was completed nearly three years ago, it has still not been published in the United

States. Indeed, CU was unable to obtain a copy from the Government agencies concerned. An edition in English was finally scheduled to be published last month (February) by Mouton, a Dutch firm in The Hague. The report, titled "Ganja in Jamaica," is by Drs. Vera Rubin and Lambros Comitas, director and associate director, respectively, of the Research Institute for the Study of Man.

In Jamaica, the report explains, marijuana is called "ganja" and is used in many ways. It is smoked, brewed as a tea, chewed, and used in cooking. In rural areas especially, it is an important element of folk medicine and superstition. "Children are introduced to ganja quite early," the Jamaica report notes, "first as a medicament in 'bush tea' or in a crude method of vaporizing, where adults blow smoke at an infant with respiratory congestion." Increasing doses of marijuana tea throughout infancy are recommended as a prophylaxis against disease. Schoolboys are urged to smoke marijuana to "help them study," to "improve memory," and to "help pass examinations." This widespread use of marijuana is found both among farmers and villagers and among residents of the slums of Kingston, Jamaica's capital.

The Jamaica study was launched in June 1970, when six anthropologists were sent into the field—five into rural districts and the sixth into an urban slum neighborhood. They found heavy ganja smoking common among the poor, despite severe legal penalties (not less than 18 months' imprisonment with hard labor for a first offense).

One of the anthropologists, Dr. Joseph H. Schaeffer, studied the effects of marijuana on ability and willingness to work. He recorded in detail how much work both smokers and nonsmokers did in a sample week and how much metabolic energy they expended while at work. In general, Dr. Schaeffer found that field laborers actually performed more motions and expended more energy after smoking marijuana than before. But they appeared to accomplish less when on marijuana—weeding a smaller patch of crops in an hour, for example. Dr. Schaeffer also reported, however, that marijuana use in group labor situations tended to increase the social cohesiveness of the workers. While it may have decreased overall efficiency, it appeared to make the prospect of long hours in the field more palatable and increase the laborers' willingness to work.

The Jamaica report calls this the "motivational syndrome"—as distinguished from the "amotivational syndrome" described by other psychiatrists.

Following this and other field studies, the Jamaica research team brought 30 male marijuana smokers and 30 nonsmokers to University Hospital at the University of the West Indies for six days of intensive medical examinations. The 60 subjects ranged in age from 23 to 53; the average age was 34. All but one of the marijuana smokers had first smoked before the age of 20; they had been smoking marijuana for 17.5 years, on the average (the range was from 7 to 37 years). They did not smoke marijuana while in the hospital.

But it was the frequency with which they smoked that will startle American readers. To qualify as a "heavy" smoker in the Jamaica study, one had to smoke at least eight "spliffs" (ganja cigarettes) a day. In the U.S., a

"heavy" smoker is often defined as one who smokes more than seven marijuana cigarettes a week. And the typical Jamaican spliff is more potent than the typical North American marijuana "joint." Thus, Jamaicans smoke considerably heavier doses than their American counterparts, even though the latter tend to inhale more deeply than Jamaicans.

The 30 control subjects were matched with the ganja smokers for age and socio-economic status. It was, however, impossible to enlist enough working class males in the right age bracket who had never once used marijuana. Accordingly, the control group was composed of 12 men who had never smoked ganja plus 18 confirmed nonsmokers who had smoked only occasionally in the past. All but three of the ganja smokers and all but 11 of the controls also smoked tobacco cigarettes. (Tobacco is also sometimes mixed with ganja in spliffs to make a "better smoke.")

Summarizing the examination findings, the Jamaica report notes "no significant physical abnormality" in any of the controls or in 28 of the 30 ganja smokers. One ganja smoker had a long history of asthma; another had a little-understood nervous condition known as "Jamaican neuropathy," suspected of being an atypical form of neurosyphilis. "There is nothing to suggest that these disabilities were in any way related to the use of cannabis," the report states.

The marijuana smokers and controls were well matched in height as well as age, but the smokers weighed seven pounds less on the average—a difference, the report noted, that "might indicate that the chronic use of cannabis causes some suppression of appetite."

X-rays of the lungs were normal in both groups except for some scarring of the lungs in one of the subjects who did not smoke marijuana. Since smoking tobacco cigarettes impairs lung function, it was also necessary to discount that effect when gauging the effects of marijuana. At worst, the Jamaica findings suggest, impaired lung function is produced by inhaling smoke, whether tobacco or marijuana.

Since the marijuana smokers in the Jamaica study were also in many cases the children and grandchildren of persons who smoked marijuana, and since many of them were probably exposed to marijuana before birth as well as during infancy, childhood, adolescence, and adult life, the study of their chromosomes by Dr. Marigold J. Thorburn of the University of the West Indies is of no small interest. Briefly, the chromosomes of the marijuana smokers were in good condition. In fact, they showed slightly fewer abnormalities than were found in the control group, though the difference was not statistically significant.

In addition to these and other studies of physical health, both ganja smokers and controls were given thorough psychiatric examinations by Drs. Michael H. Beaubrun and Frank Knight, both psychiatrists. Only one ganja smoker and one control reported a history of past mental illness. Four ganja smokers and three controls had had alcohol problems sufficiently acute to interfere with work or social functioning. Two ganja smokers, however, "reported that they had been able to reduce their alcohol intake, and seemed to relate this to ganja use."

On the Eysenck personality test, the "extroversion

scores" were identical for ganja smokers and controls. The only man suffering from depression, as gauged by the Hamilton Ratings Scale for Depression, was not a marijuana smoker. Not a single smoker or control appeared to be schizophrenic on either of two rating scales.

The brain-wave recordings of both ganja smokers and controls were also compared. Significant differences were not found.

A battery of 19 psychological tests, designed to compare ganja smokers and nonsmokers on 47 measures, including 11 measures of intelligence, was administered in the Jamaica study. Smokers had not smoked marijuana for two days before the tests and did not smoke on the test day. The marijuana smokers scored better on 29 of the 47 measures—a statistically insignificant finding.

Drs. Beaubrun and Knight summed up as follows: "The data clearly indicate that the long-term marijuana use by these men did not produce demonstrable intellectual or ability deficits when they were without the drug for three days. There is no evidence in the results to suggest brain damage."

The psychiatrists also asked about regularity and continuity of employment and frequency and nature of job changes. No significant differences were found between marijuana smokers and controls. Thus, careful psychiatric examination showed no evidence that these Jamaicans were "semi-zombies" after having smoked very large quantities of very strong marijuana for an average of 17.5 years.

CONFLICT OF EVIDENCE

By far the greatest conflict of evidence on marijuana exists between the Jamaica study and the studies cited earlier. But there are also notable conflicts among the latter studies themselves. Here are some examples.

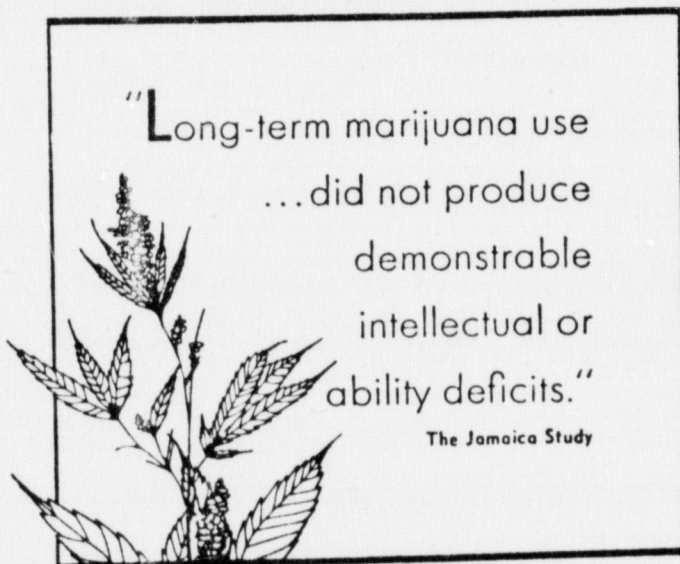
1. **Brain damage.** The Campbell report, it will be recalled, found evidence of brain damage in a group of marijuana smokers. But was the damage present before the patients started to smoke marijuana? If not, was it caused by marijuana, by some other drug, or by some nondrug factor, such as a blow on the head? Here is what Dr. Kolodny—the scientist who believes marijuana smoking lowers testosterone levels—has to say about the Campbell report:

Research in cannabis effects on humans has not always been performed or presented with objectivity. Many studies have been severely limited by indiscriminately including multiple drug users, thus frequently raising more questions than providing useful information. As an example of such research, I would like to comment briefly on the [Campbell] study entitled "Cerebral Atrophy in Young Cannabis Smokers. . . ." In the 10 cases reported, all 10 men had used LSD—many of them over 20 times—as well as cannabis, and 8 of the 10 had used amphetamines. One subject had a previous history of convulsions, four had significant head injuries, and a number had used sedatives, barbiturates, heroin, or morphine. On the basis of these facts, speculative connection between cannabis use and brain damage is highly suspect. Unfortunately, this type of report is typical of much of the research done in this field.

Next, consider this comment on the work of Dr. Heath, who reported brain-wave changes in rhesus monkeys exposed to marijuana smoke, by Dr. Julius Axelrod, who won a 1970 Nobel Prize for two studies, one of them concerned

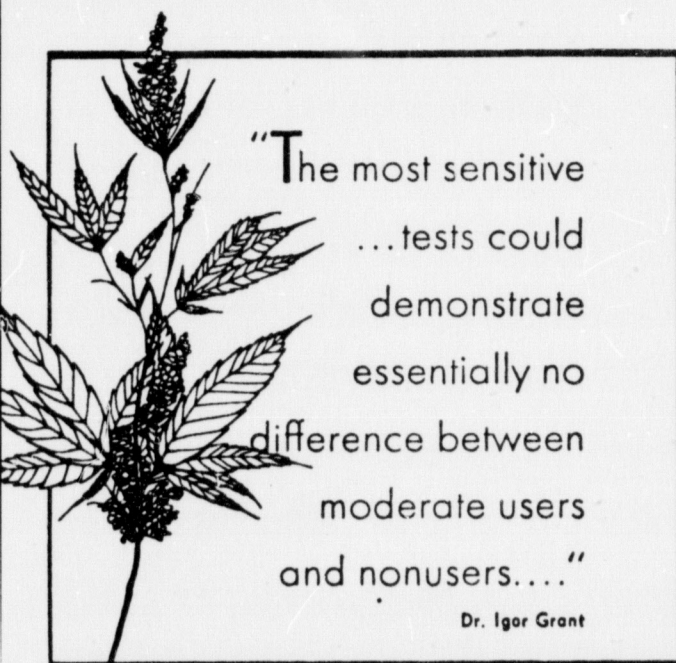
with the effects of drugs on the brain. Dr. Axelrod appeared as a witness before the Eastland subcommittee to warn against marijuana. Asked at the subcommittee hearings about Dr. Heath's experiments, Dr. Axelrod replied:

. . . One of the fundamental principles in pharmacology is the amount of a compound or drug that enters the body. You could take the most poisonous compound, and if you take too little, there is no effect. One may take a very supposedly safe compound, and if you give enough of it, it will cause toxic effects. This, I think, all pharmacologists recognize. I respect Dr. Heath; he is a fine neurologist; but the doses he has given for the acute effect, for example, would be equivalent to smoking 100 marijuana cigarettes, a very heavy dose of marijuana. And the amount he has given for the chronic effect represents smoking 30 marijuana cigarettes three times a day for a period of six months. [Even the heavy ganja smokers in the Jamaica study smoked only a fraction of this.] The results indicate that marijuana causes an irreversible damage to the brain. But the amounts used are so large that one wonders whether it's due to the large toxic amounts Dr. Heath has given. I think it would be a better experiment if he had done what is done in pharmacology, a dose-response [curve]; smaller amounts equivalent to that used by an occasional marijuana smoker and larger amounts used by a chronic smoker [would be given] to see what levels would produce these irreversible effects. I hope that this will be done.



Dr. Lester Grinspoon of the Harvard Medical School similarly points out that the monkeys in the Heath study did not smoke marijuana voluntarily but had the heavy doses forced into their lungs. Since the monkey lung is about 1/15th the size of a human lung, the concentration of marijuana in the monkey lung may have been 15 times as high as that of a comparable dose in the human lung. Allowing for this and other dosage disparities, Dr. Grinspoon notes, it is possible that Dr. Heath's monkeys were exposed to marijuana concentrations vastly greater than those experienced by the usual human smoker.

Nor have the brain-damage allegations of Drs. Kolansky and Moore gone unchallenged. At the University of Pennsylvania (with which Drs. Kolansky and Moore are associated), another team of researchers headed by Dr. Igor Grant



administered a neurological examination to 29 marijuana smokers and 29 nonsmoking controls, all of them medical students. In addition to the neurological functions usually tested, six measures specifically designed to reveal brain damage were used. The examiners did not know which examinees were marijuana smokers and which were nonsmokers. No difference was found between the two groups.

In addition, the Grant team administered a battery of neuropsychological tests designed to reveal brain damage. "We found no difference between marijuana smokers and nonsmokers on seven out of eight measures," Dr. Grant and his associates reported. "Marijuana smokers did not perform quite as well as nonsmokers ... on one of the three subtests of the Tactual Performance Test." The team added, however, that "the absence of confirmatory findings in the other tests has led us to conclude that this one finding did not indicate a neuropsychological deficit among marijuana smokers." They summed up their findings in these terms:

A battery of the most sensitive neuropsychological tests now available could demonstrate essentially no difference between moderate users and nonusers of marijuana. These results agree with those of Mendelson and Meyer who employed similar tests with 10 casual and 10 heavy users.

Finally, the allegations of an "amotivational syndrome" and of brain damage are challenged by the findings of Dr. Norman Q. Brill and his associates at the University of California at Los Angeles School of Medicine. This group checked the college grades of 1380 UCLA undergraduates in 1970, then followed up on the same sample in 1971 (1133 students) and 1972 (901 students). Many of those who left college as well as those who stayed on were followed up.

Six groups of students could be discriminated during this study: those who had never smoked marijuana; those who began smoking during the study; those who increased use during the study; those whose usage remained stable throughout the study; those who decreased use; and those who quit marijuana altogether.

All six groups showed a steady improvement in college grades from year to year. The nonsmokers had the highest grades as freshmen but the lowest grades as seniors and graduate students; the differences were not statistically significant. Neither college grades nor other factors checked by the UCLA scientists supplied any evidence of brain damage or of an amotivational syndrome. "So far as we have been able to determine by this longitudinal study," the Brill group concluded, "the dire consequences that were predicted have not materialized."

2. Lowered resistance to disease. Dr. Nahas, it will be recalled, grew T-lymphocytes from marijuana smokers in laboratory cultures and then challenged them with foreign substances. He interpreted his results as indicating an impairment of the immune response among marijuana smokers—an impairment similar to that found in some cancer patients.

Among those alarmed by the Nahas findings were Dr. Melvin J. Silverstein and his associate, Ms. Phyllis J. Lessin, at the University of California at Los Angeles. Patients with this kind of defect in immunity, they noted in a recent issue of *Science*, "develop cancer at rates at least 80 times that of the general population." But was Dr. Nahas right in interpreting his results to mean a loss of immune response?

To check on the Nahas claim, Dr. Silverstein and Ms. Lessin took an approach that determines the immune response in the human body itself instead of in a test tube. They challenged chronic marijuana smokers with a foreign substance called DNCB (2,4-dinitrochlorobenzene). A small amount of DNCB was first rubbed on the skin to sensitize it; two weeks later, small doses of DNCB were injected into the skin. Under these circumstances, 96 per cent of all adults develop an immune reaction—a reddening of the skin around the test area and sometimes more severe skin changes. These changes can be graded from 1-plus (a minimum reaction) to 4-plus (a very severe reaction, including blistering).

When this test was run on 22 marijuana smokers, the results clearly indicated that their immune responses were intact and vigorous. All 22 showed a response to even a small (50-microgram) dose of DNCB, and in 21 of the 22 the response was severe (3-plus or 4-plus). Even with only a 25-microgram dose, 21 of the 22 showed an immune reaction, and 14 of the reactions were 3-plus or 4-plus. No resemblance was found to the immune reactions of a control group of cancer patients. Tests with other foreign substances confirmed this finding of a normal immune response in marijuana smokers.

"... There is no clinical or epidemiologic evidence to suggest that chronic marijuana users might be more prone to the development of neoplastic [cancerous] or infectious processes," Dr. Silverstein and Ms. Lessin noted. "Since responses were normal in the chronic marijuana users we tested, it would appear that chronic marijuana smoking does not produce a gross cellular immune defect that can be detected by skin testing."

3. Birth defects and hereditary disease. The Stenchever report that marijuana damages chromosomes, like earlier claims that LSD damages chromosomes, is being heavily challenged by contradictory evidence.

At the Institute for Medical Research in Camden, N.J.,

for example, Dr. Warren W. Nichols and his associates performed a well-controlled study of marijuana effects on chromosomes. They first checked the chromosomes of 24 occasional marijuana smokers and found them to be in good condition. They then gave their 24 subjects measured doses of marijuana daily for five or 12 days and checked their chromosomes again. No damage was detected.

Other investigators who have failed to find marijuana damage to chromosomes include Dr. Thorburn of the University of the West Indies (in the Jamaica study), Dr. Henry B. Pace and his associates at the University of Mississippi, and Dr. Richard L. Neu of the Upstate Medical Center, State University of New York. Animal studies have also failed to provide evidence of chromosome damage.

As for the Morishima report that the lymphocytes of marijuana smokers have fewer than the normal number of chromosomes, two difficulties should be noted.

First, all of the lymphocytes studied by Dr. Morishima and reported by him to the Eastland subcommittee came from just three marijuana smokers and three nonsmokers; this is an extremely modest base from which to anticipate, in Dr. Morishima's words, "potential danger in [the] immune defense system, development of cancer . . . genetic mutation and birth defects."

The second difficulty: if more than 30 per cent of the lymphocytes of chronic marijuana smokers contain fewer than 31 chromosomes instead of the normal 46, how could this gross lack of chromosomes have escaped the attention of Drs. Nichols, Stenchever, Thorburn, Pace, Neu, and others who have been intensively examining lymphocytes for chromosome breaks and other minor abnormalities?

4. Lung damage. Though the evidence to date is far from decisive, there is no reason to doubt that marijuana smoke, like tobacco smoke and other kinds of smoke, may damage human lung cells. *How much* damage remains an unanswered question. But the extent of damage is probably more closely related to the amount of smoke inhaled than to the type of smoke. Thus, it is hardly plausible at this stage of scientific knowledge to worry that someone who is smoking a pack of tobacco cigarettes a day—140 a week—may experience further lung damage by adding two or three marijuana cigarettes a week.

For very heavy users who smoke many marijuana cigarettes a week, of course, the risk of lung damage may be serious. Dr. David E. Smith of the University of California at San Francisco Medical School, who is also medical director of the Haight-Ashbury Free Clinic, has accordingly suggested that such users switch from marijuana smoking to other forms of marijuana consumption—such as drinking marijuana tea—to protect their lungs from smoke.

5. Sterility and impotence. Back in 1971, Dr. Kolodny and his associates at the Masters-Johnson sex research center in St. Louis reported that male homosexuals have lower testosterone levels than male heterosexuals. That report, like the Kolodny report on low testosterone levels in marijuana smokers, was widely circulated by the mass media. Within two or three years, however, three efforts to replicate the Kolodny finding failed, and it is now generally agreed that no significant difference exists between homosexual and

heterosexual testosterone levels. The Kolodny report on testosterone levels and marijuana is now experiencing a similar challenge.

In November 1974, Dr. Jack H. Mendelson and his associates at the Alcohol and Drug Abuse Research Center, Harvard Medical School-McLean Hospital, reported a carefully controlled study of marijuana effects on testosterone. Like the Kolodny study, the Mendelson study was published in *The New England Journal of Medicine*.

The Mendelson group selected for its study 27 young male marijuana smokers, some of them casual smokers and others heavy smokers who had consumed more than one marijuana cigarette a day for the past year and who had been smoking marijuana for an average of 5.6 years (range, three to nine years). All subjects were requested to refrain from marijuana smoking for two weeks and were then admitted for a 31-day stay in a locked hospital ward, where access to marijuana and other drugs was rigorously controlled.

During the first six days of the experiment, no marijuana was permitted. Testosterone levels were measured each morning. The average levels were in "the upper range of normal adult male levels." The heavy smokers had somewhat higher levels than the casual smokers, but the difference was not statistically significant.

During the next 21 days, the subjects were allowed to "earn" marijuana by performing a simple manual task. They were required to smoke this marijuana under observation to make sure it was really consumed. As the days rolled by, both the casual and the heavy marijuana smokers gradually increased their consumption, some of them to very high levels. Their testosterone levels did not fall. Under these carefully controlled conditions, the Mendelson group concluded, "high-dosage marijuana intake was not associated with suppression of testosterone levels. . . ."

THE PATTERN OF EVIDENCE

Out of all of these many studies (and others not reviewed here), a general pattern is beginning to emerge. When a research finding can be readily checked—either by repeating the experiment or by devising a better one—an allegation of adverse marijuana effects is relatively short-lived. No damage is found—and after a time the allegation is dropped (often to be replaced by allegations of some other kind of damage due to marijuana).

If the test procedure is difficult—like the air encephalograms that Dr. Campbell employed, or like Dr. Heath's work with electrodes implanted deep in the brain—independent repeat studies are not run in other laboratories. So these allegations of damage continue to be cited in the scientific literature and in the lay press. Then they, too, are eventually replaced by fresh allegations of marijuana damage.

After reviewing the voluminous evidence available up to January 1972, CU did not conclude in "Licit and Illicit Drugs" that marijuana was "harmless." On the contrary, we then pointed out, "no drug is safe or harmless to all people at all dosage levels or under all conditions of use." We see no need to withdraw or modify that conclusion.

We do, however, see a need to comment on the adverse legal and social consequences of misinformation about the health effects of marijuana. We shall do so next month.

FIELD - USA v. Kestenbaum

STATE OF NEW YORK)
: SS.
COUNTY OF RICHMOND)

ROBERT BAILEY, being duly sworn, deposes and says, that deponent is not party to the action, is over 18 years of age and resides at 286 Richmond Avenue, Staten Island, N.Y. 10302. That on the 25 day of April, 1975 deponent served the within *EXHIBIT* upon U.S. Atty., Eastern District of New York

attorney(s) for
Appellee

in this action, at

225 Cadman Plaza East, Brooklyn, N.Y.

the address(es) designated by said attorney(s) for that purpose by depositing 3 true copies of same enclosed in a postpaid properly addressed wrapper, in an official depository under the exclusive care and custody of the United States post office department within the State of New York.

R. G. Bailey
.....
ROBERT BAILEY

Sworn to before me, this
25 day of April, 1975.
William Bailey
WILLIAM BAILEY
Notary Public, State of New York
No. 43 0132945
Qualified in Richmond County
Commission Expires March 30, 1976